

# BRCL4079ZR-4.2

Rev.B May.-2025

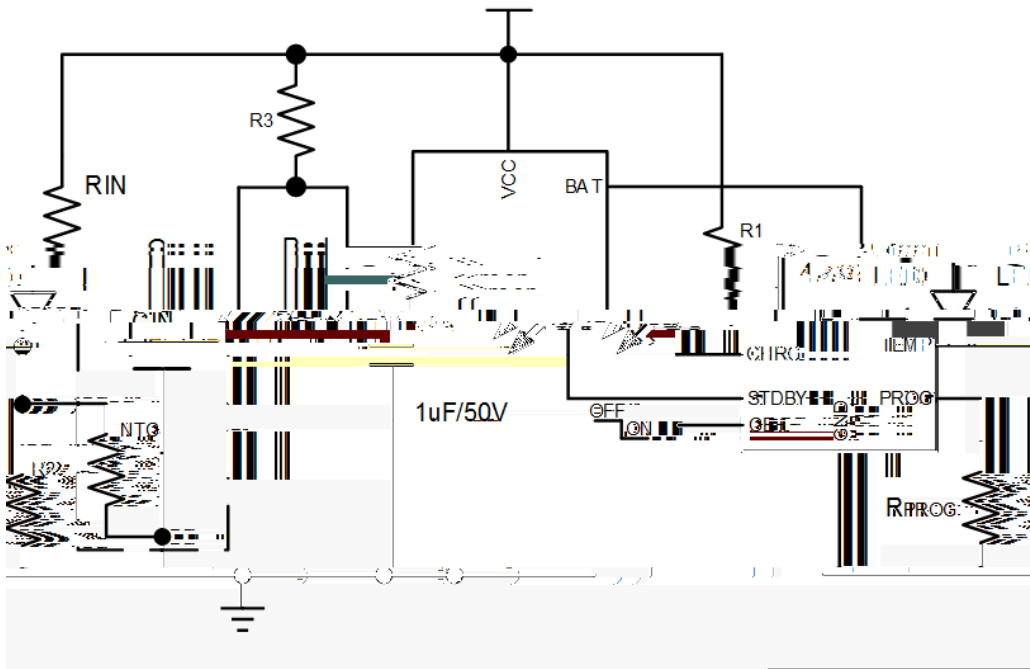


蓝箭电子  
BLUE ROCKET ELECTRONICS

DATA SHEET

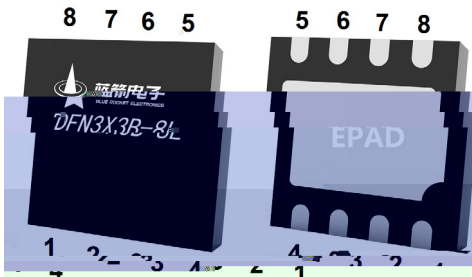
BRCL4079ZR-4.2			
BRCL4079ZR-4.2	/		
BRCL4079ZR-4.2			USB
BRCL4079ZR-4.2	PMOSFET		
	4.2V	PROG	1.0A
	BRCL4079ZR-4.2		

/ Application Circuit



1	VCC	VCC	CIN	4.7	VCC
2	CE	MCU	CE	GND	BRCL4079ZR-4.2
					CE
					VCC

/ Pinning



PIN Num.	Symbol	Function
1	TEMP	
2	PROG	GND
3	GND	
4	VCC	
5	BAT	
6	STDBY	
7	CHRG	
8	CE	
EPAD	GND	

/ Absolute Maximum Ratings( $T_a=25$  )

PARAMETER	SYMBOL	RATINGS	UNITS
VCC Pin Voltage	$V_{VCC}$	-0.3~36.0	V
BAT Pin Voltage	$V_{BAT}$	-4.2~18.0	
CHRG/STDBY Pin Voltage	$V_{CHRG/STDBY}$	-0.3~13.0	
PROG Pin Voltage	$V_{PROG}$	-0.3~5.5	
Other Pin Voltage	$V_{TEMP/GND/CE}$	-0.3~5.5	
Operating Ambient Temperature Range	$T_{OP}$	-40~+85	°C
Storage Temperature	$T_{stg}$	-65~+150	°C
Lead Temperature (Soldering, 10s)	$T_{solder}$	260	°C
ESD	HBM	2000	V
	CDM	1000	V

/ Electrical Characteristics( $V_{CC}=5V, V_{BAT}=3.6V, T_a=25$  )

PARAMETER	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNITS
Input Supply Voltage	$V_{CC}$		4.5	5.0	36.0	V
Input Power Supply Current	$I_{CC}$	Charging mode ( $R_{PROG}=1.0k$ )		260	360	$\mu A$
		Standby mode, charging terminated		180	300	$\mu A$
		Shutdown mode ( $R_{PROG}$ not connected, $V_{CC}<V_{BAT}$ , or $V_{CC}$ $V_{UV}$ )		180	300	$\mu A$
		OVP mode( $V_{CC}=30V$ )		180	300	$\mu A$
Regulated Output (Float) Voltage	$V_{FLOAT}$	0 $T_A$ 85 , $R_{PROG}=1.0k$	4.158	4.2	4.242	V
BAT Pin Current	$I_{BAT}$	$R_{PROG}=1.0k$ Current mode	855	950	1045	mA
		Standby mode, $V_{BAT}=4.2V$	0	-2.5	-6	$\mu A$
		Shutdown mode ( $R_{PROG}$ not connected)		$\pm 1$	$\pm 2$	$\mu A$
		Sleep mode, $V_{CC}=0V$		-1	-2	$\mu A$
Trickle Charge Current	$I_{TRIKL}$	$V_{BAT} > V_{TRIKL}$ $R_{PROG}=1.0k$	62	95	128	mA
Trickle Charge Threshold	$V_{TRIKL}$	$R_{PROG}=1.0k$ $V_{BAT}$ from Low to High	2.3	2.5	2.7	V
Trickle Charge Hysteresis	$V_{TR\_HYS}$	$R_{PROG}=1.0k$	120	160	200	mV
VCC Under Voltage Lockout Threshold	$V_{CC\_UV}$	$V_{CC}$ from Low to High	3.5	3.7	3.9	V

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1/10  
PROG 100mV tTERM  
BRCL4079ZR-4.2  
1.8ms  
55μA C/10  
BAT PROG DC 1/10  
100mV 1.8ms tTERM  
1/10 BRCL4079ZR-4.2  
BAT BAT  
BRCL4079ZR-4.2 BAT 4.05V  
VRECHRG  
PROG



**BRCL4079ZR-4.2**

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**DATA SHEET**

BRCL4079ZR-4.2  
4.05V

1.8ms  
80% 90%

BAT

CHRG

ESR

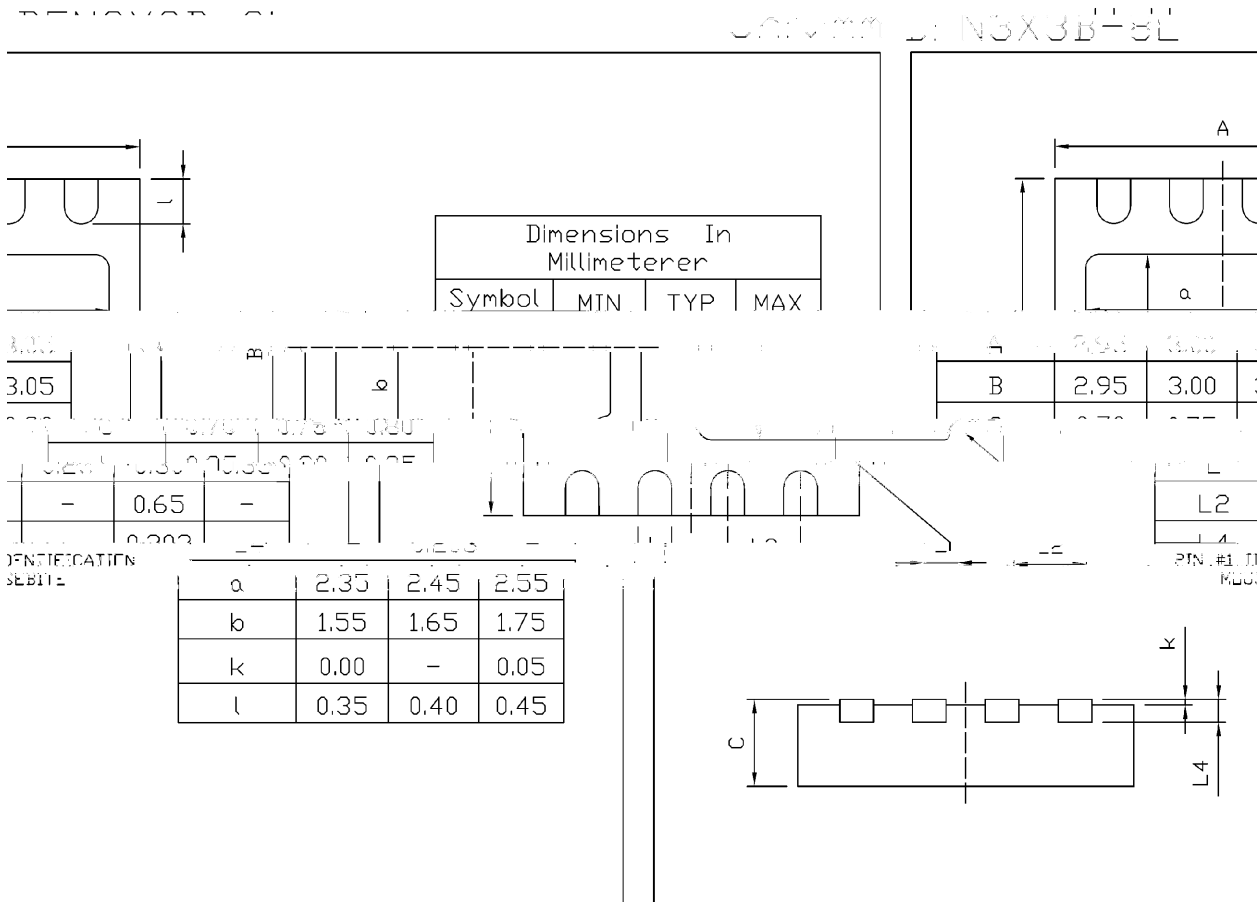
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PROG

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g0708WE

**/ Package Dimensions**



Rev.00 202006

/ Marking Instructions



BR

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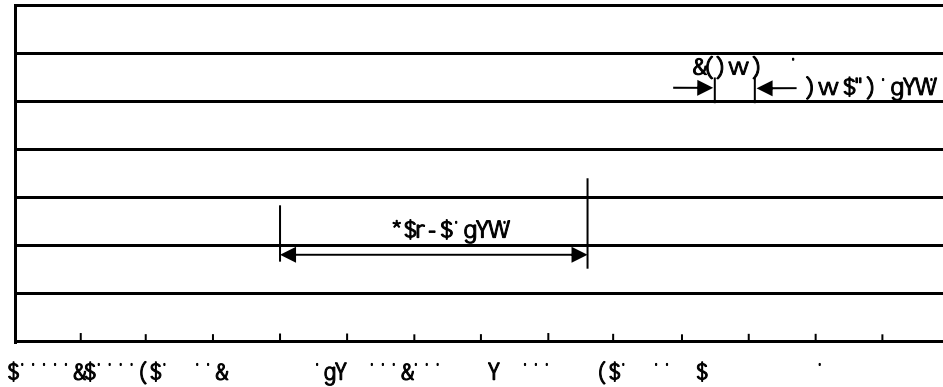
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4.2V



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**Note:**

- |   |         |           |   |
|---|---------|-----------|---|
| 1 | 150 180 | 60 90sec; | 1.Preheating:150~180 , Time:60~90sec.   |
| 2 | 245±5   | 5±0.5sec; | 2.Peak Temp.:245±5 , Duration:5±0.5sec. |
| 3 | 2 10    | /sec.     | 3. Cooling Speed: 2~10 /sec.            |

**/ Resistance to Soldering Heat Test Conditions**

260±5                      10±1 sec.                      Temp.:260±5                      Time:10±1 sec

**/ Packaging SPEC.**

/ REEL

Package Type	Units					Dimension (unit mm <sup>3</sup> )		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box
DFN3x3B-8L	5,000	2	10,000	6	60,000	13 ×12	360×360×50	380×335×366

**/ Notices**

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